

## REMARKS

This is a full and timely response to the non-final Office Action mailed May 10, 2000. A petition for Extension of Time to within the second month is submitted herewith. Reexamination in light of the above amendments and the following remarks is respectfully requested.

Claims 37 - 50 are pending in the application. By this amendment, claims 6, 8, 11, 12, 17, 19, 22, 29, 31 and 34 were canceled without prejudice or disclaimer and claims 37 -50 were added, with claims 37 and 41 being independent. No new matter was added, and the changes were not made to overcome the art of record.

Applicant has carefully considered the contents of the Office Action dated May 10, 2000, including the substantive rejection of the claims under 35 U.S.C. § 102, as well as the personal interview between applicant's representative and the Examiner on August 1, 2000.

Applicants' representative thanks Examiner Jones for the courtesies extended during the August 1, 2000 personal interview.

I. The Drawings

A Request for Approval of Drawing Corrections is included with this Amendment. Fig. 2 was amended to add reference numerals to the graphical user interface 35 and the load model to scheduler 41. Figs. 2 and 3 were amended to add a reference numeral to the actual fabrication data 21. Fig. 5 was amended to add a reference numeral to the graphical user interface screen 45. No new matter has been added.

II. The Specification

The specification is amended to add reference numerals. No prohibited new matter has been introduced by these revisions.

III. The Claims are Allowable Over Co-Pending Applications

The Office Action provisionally rejects claims 6, 8, 11, 12, 17, 19, 22, 29, 31 and 34 under 35 U.S.C. §101 as claiming the same invention as U.S. Application Serial No. 08/941,825. Applicant respectfully traverses this rejection.

However, in order to expedite prosecution, Applicant has cancelled claims 6, 8, 11, 12, 17, 19, 22, 29, 31 and 34. The pending claims in this application address a Kanban model and simulator, while the claims pending in Serial No. 08/941,825 address another aspect of the invention.

Accordingly, withdrawal of this rejection is respectfully requested.

IV. The Claims are Allowable Over the Art of Record

The Office Action rejects claims 6, 8, 11, 12, 17, 19, 22, 29, 31 and 34 under 35 U.S.C. §102(b) as being anticipated by U.S. Patent 5,554,348 to Umeda et al., or Seppanen (of record), or Wiwakanond et al. (of record), or Corbett et al. (of record), or Tantry et al. (of record), or Natarajan, or Parad, or Korncoff et al., or Weaver et al. or Lee et al. The Office Action asserts that the Applicant is disclosing a virtual Kanban system, wherein the kanban system is a function of processes, and a means for simulating the system. Additionally, the Office Action asserts that any disclosure regarding simulation of a kanban system reads on the independent claims, and such art has been asserted. Applicant respectfully traverses these rejections.

However, in order to expedite prosecution, Applicant has canceled claims 6, 8, 11, 12, 17, 19, 22, 29, 31 and 34, and the rejection will be treated as applying to the pending claims 37 - 50.

The following remarks expand upon the personal interview of August 1, particularly explaining the distinction between the kanban module and the simulation module, as requested by the Examiner.

Claim 37 recites a system for controlling a manufacturing production line using a virtual kanban system. The system includes a production scheduling model that includes the virtual kanban system. The virtual kanban system outputs an electronic kanban that represents a

production routing schedule. A database stores the production scheduling model and production line feedback data.

The feedback data comprises two data sets. The first data set specifies the equipment in the production line. The second data set specifies at least one of operating status of the equipment, product lot status and production input status.

A simulator that simulates operation of the production line receives as input the electronic kanban and production line feedback data. The simulator determines the validity of the electronic kanban by running the simulator. If the electronic kanban is valid, the electronic kanban is output and a work schedule is generated.

In this manner, a production model generates the electronic kanban based on optimization and predetermined formula and rules. The electronic kanban is input to a simulator for verification. That is, the simulator is a model of the production process, and is used to test the validity of the kanban. If the kanban is valid, the simulator output the kanban. Claim 48 recites a method for using the production model and the simulator.

Applicant is not claiming a simulation of a kanban system, nor the unity of the kanban with the simulator. Rather, the production model generates an electronic kanban for input to a simulator prior to release of the electronic kanban to, for example, a production process. According to the specification at page 16, line 23 to page 17, line 14, the scheduler 32 performs simulation runs on the production model using the kanban worksheets. The kanban worksheets are virtual, or electronic, and are generated using a Kanban Design Module and stored in the scheduler database 30. See page 4, lines 22 – 23 and Fig. 2.

Accordingly, as acknowledged by the examiner during the August 1 personal interview, all of the applied art address a simulation of a kanban. Therefore, as discussed above and as discussed during the August 1 personal interview, the applied art does not disclose, teach or suggest a separate production model that generates an electronic kanban and a simulator for receiving the electronic kanban and determining the validity of the electronic kanban prior to release of the electronic kanban. Therefore, as discussed above, claims 37 and 41 are neither

anticipated nor rendered obvious by the applied art. Further, dependent claims 38 - 40 and 42 - 50 are considered allowable for the reasons discussed above regarding claims 37 and 41, as well as for the additional features they recite. Withdrawal of this rejection is respectfully requested.

V. Conclusion


For the foregoing reasons, Applicant submits that the independent claims are allowable over the art of record. The dependent claims are also allowable for at least the reasons given above with respect to the independent claims and because they recite features which are patentable in their own right. Individual consideration of the dependent claims is respectfully requested.

The claims now pending are believed allowable, and favorable consideration of the claims in light of the above remarks is courteously solicited.

If the Examiner has any comments or suggestions that could place this application in even better form, the Examiner is requested to telephone the undersigned attorney at the below-listed number.

Respectfully submitted,

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